THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2)is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte CHRISTOPHER G. JENKINSON

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Appeal No. 95-5020
Application 08/151,041[1]

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Heard: November 3, 1998

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Before URYNOWICZ, THOMAS and FLEMING, ***Administrative Patent Judges***.

FLEMING, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 36, 37, 42, 46, 47 and 52 through 56. Claims 1 through 25 have been canceled. Claims 26 through 35, 38 through 41, 43 through 45 and 48 through 51 have been withdrawn from

[1]Application for patent filed November 12, 1993. According to appellant, this application is a continuation of application 07/808,713, filed December 17, 1991, now abandoned

consider-ation.

The invention relates to a method of and apparatus for monitoring partial discharge activity in an insulating medium.

Independent claim 36 is reproduced as follows:

> 36. Apparatus for monitoring a partial discharge in an insulating medium comprising:
>
> > waveform generator means for generating a time varying exciting waveform to an insulating medium and for generating a trigger pulse for initiating a partial discharge in said insulating medium; and
> >
> > coupling means for applying the exciting waveform and the trigger pulse to a sample of said insula-ting medium so that partial discharge activity is initiated in the medium substantially simultan- eously with the occurrence of the trigger pulse.

The reference relied on by the Examiner is as follows:

McFerrin	3,727,128	Apr. 10, 1973

Claims 53 and 54 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 36, 37, 42, 46, 47, 52 and 55 stand rejected under 35 U.S.C. § 102 as being anticipated by McFerrin. Claim 56 stands rejected under 35 U.S.C. § 103 as being unpatentable over McFerrin.

Rather than repeat the arguments of Appellant or the

Examiner, we make reference to the briefs[2] and the answer for the details thereof.

OPINION

After a careful review of the evidence before us, we do not agree with the Examiner that claims 53 and 54 are properly rejected under 35 U.S.C. § 112, second paragraph. In addition, we do not agree with the Examiner that claims 36, 37, 42, 46, 47, 52 and 55 are properly rejected under 35 U.S.C. § 102 as being anticipated by McFerrin or that claim 56 is properly rejected under 35 U.S.C. § 103 as being unpatentable over McFerrin.

Analysis of 35 U.S.C. § 112, second paragraph, should begin with the determination of whether the claims set out and circum-scribe the particular area with a reasonable degree of precision and particularity. It is here where definiteness of the language must be analyzed, not in a vacuum, but always in light of the teachings of the disclosure as it would be interpreted by one possessing ordinary skill in the art. ***In***

[2]Appellant filed an appeal brief on May 15, 1995. Appellant filed a reply appeal brief on August 29, 1995. The Examiner stated in the Examiner's letter mailed November 2, 1995 that the reply brief has been entered and considered but no further response by the Examiner is deemed necessary.

re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977), *citing* ***In re Moore***, 439 F. 2d 1232, 1235, 169 USPQ 236, 238 (1971). Furthermore, our reviewing court points out that a claim which is of such breadth that it reads on subject matter disclosed in the prior art is rejected under 35 U.S.C. § 102 rather than under 35 U.S.C. § 112, second paragraph. *See* ***In re Hyatt***, 708 F.2d 712, 715, 218 USPQ

195, 197 (Fed. Cir. 1983) and ***In re Borkowski***, 422 F.2d 904, 909, 164 USPQ 642, 645-46 (CCPA 1970).

On page 2 of the answer, the Examiner states that the reasons for the 35 U.S.C. § 112, second paragraph rejection are given in the final rejection. There, the Examiner argues that there is a contradiction, because Appellant's claim 52 requires that the discharge and the trigger pulse be "substantially simultaneous" while dependent claim 53 requires a delay between these events.

Appellant argues on page 11 of the brief that claims 53 and 54 are in conformity with 35 U.S.C. § 112, second

paragraph. In particular, Appellant points out that claim 53 requires a short duration pulse which has an amplitude "sufficient for initiating said discharge activity with a time delay from occurrence of said trigger pulse having said predetermined order of magnitude of said predetermined duration of said trigger pulse." Appellant further points out that the specification discloses that the discharge occurs within the trigger pulse duration of one microsecond. Appellant argues that a delay within the trigger pulse duration of one microsecond is a discharge occurring substantially simultaneously with the trigger pulse.

Upon a close review of the claim in light of the teaching of the disclosure as it would be interpreted by one possessing ordinary skill in the art, we find that Appellant's claims set out and circumscribe the particular area with a reasonable degree of precision and particularity. We note that the term "substan-tially simultaneous" does not require that there is an exact coincidence. We find that a delay of one microsecond is well within the meaning of this term. Therefore, we will not sustain the Examiner's rejection of claims 52 and 53 under

35 U.S.C. § 112, second paragraph.

Claims 36, 37, 42, 46, 47, 52 and 55 stand rejected under 35 U.S.C. § 102 as being anticipated by McFerrin. It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. ***See In re King***, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and ***Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co***., 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

Appellant argues on pages 12 through 29 of the brief that McFerrin fails to teach the Appellant's claimed limitations as required under 35 U.S.C. § 102. In particular, Appellant argues on pages 24 through 28 that McFerrin does not teach a means for

generating a trigger pulse for initiating a discharge. In addition, Appellant further argues on page 29 that McFerrin does not teach a means for initiating discharge activity in the medium in response to the trigger pulse and substantially simultaneously with the occurrence of the trigger pulse.

We note that independent claim 36 recites "a waveform generator means for generating a time varying exciting waveform ... and for generating a trigger pulse for initiating a partial discharge in said insulating medium; and coupling means for applying the exciting waveform and the trigger pulse to a sample of said insulating medium so that partial discharge activity is initiated in the medium substantially simultaneously with the occurrence of the trigger pulse." We note that claim 52, the only other independent claim, recites a waveform generator and coupling means having at least the above limitations.

On page 3 of the brief, Appellant corresponds the waveform generator means recited in claim 36 to the variac 10 and step-up transformer 12 shown in Figure 2 for generating a time varying
exciting waveform, the sine wave 22 shown in Figure 3. Appellant further corresponds the waveform generator recited in claim 36 to the trigger pulse generating circuit 16 shown in Figure 2 for

generating a trigger pulse, pulse 22 shown in Figure 3, for

initiating a partial discharge in said insulating medium. On page 5 of the brief, Appellant corresponds the waveform generator recited in claim 52 to the disclosure on page 13 and Figure 5 of the specification. There, the specification states that Figure 5 illustrates a typical trigger pulse generated by the circuit of Figure 4 and the trigger pulse is superimposed on a low frequency exciting waveform.

On page 4 of the answer, the Examiner points out that McFerrin teaches a waveform generator that generates a pedestal waveform of a normal operating voltage. The Examiner argues that the McFerrin trigger pulse that is superposed on the pedestal waveform reads on Appellant's claimed trigger pulse. The Examiner argues that the trigger pulse causes a breakdown in the faulty cable but does not point to any specific teaching in McFerrin.

Upon a careful review of McFerrin, we fail to find that Davis teaches a waveform generator for generating a trigger pulse
for initiating a partial discharge in the insulating material or a coupling means for applying the trigger pulse to the insulating medium so that partial discharge activity is

initiated in the

medium substantially simultaneously with the occurrence of the trigger pulse. In column 1, lines 5-19, McFerrin states that his invention is concerned with locating faults in an electrical cable. We fail to find any teaching of attempting to measure partial discharge activity in the cable. In addition, McFerrin fails to teach a trigger pulse that would cause a partial discharge activity substantially simultaneously with the occurrence of the trigger pulse. McFerrin does teach in column 3, lines 40-52, that the pulse used to locate a fault must be of sufficient voltage and current to ionize the materials at the location of the fault. However, we fail to find that McFerrin teaches that the voltage is sufficient to cause a partial discharge in an insulting medium that has not degraded to a failure of the insulation as claimed by Appellant. Therefore, we find that McFerrin fails to teach all of the limitations of claims 36, 37, 42, 46, 47, 52 and 55, and thereby the claims are not anticipated by McFerrin.

Claim 56 stands rejected under 35 U.S.C. § 103 as being

unpatentable over McFerrin. The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re Fritch***, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). We have pointed out above that McFerrin is not concerned with the problem of detecting and measuring partial discharge in an insulting medium. Furthermore, we fail to find any suggestion in the record to modify McFerrin to obtain Appellant's claimed invention.

In view of the foregoing, the decision of the Examiner rejecting claims 36, 37, 42, 46, 47 and 52 through 56 is reversed.

REVERSED

STANLEY M. URYNOWICZ, JR.)
Administrative Patent Judge)
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)
) BOARD OF PATENT

JAMES D. THOMAS Administrative Patent Judge	)	APPEALS AND INTERFERENCES
MICHAEL R. FLEMING Administrative Patent Judge	)	

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Lowe, Price, Leblanc & Becker
Suite 300
99 Canal Center Plaza
Alexandria, VA 22314